

# Daily GLOWBUGS

## Digest: V1 #42

via AB4EL Web Digests @ SunSITE

Purpose: building and operating vacuum tube-based QRP rigs

[AB4EL Ham Radio Homepage @ SunSITE](#)

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**Subject: glowbugs V1 #42**

**glowbugs**

**Sunday, May 25 1997**

**Volume 01 : Number 042**

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Date: Sat, 24 May 1997 13:19:51 -0500 (EST)

From: "Roberta J. Barmore" <[rbarmore@indy.net](mailto:rbarmore@indy.net)>

Subject: Re: Playing with a modern spark tuner --- suprising funzies

Hi!

Been some mention of DC bias on mineral-type detectors (catwhisker & crystal).

The \*classic\* crystal this is used with, and a stand-by in OT shipboard use, is carborundum. That's right, the very same abrasive first made in an attempt to synthesize diamonds back in 1891. It didn't come into use as a detector 'til around 1906 (Dunwoody).

One good source of dope is Elmer Osterhoudt's MRL Handbooks. From HB-3, "Crystal Detectors," we find carborundum works best with a fairly heavy c/w--EO suggests a steel phonograph needle or heavy spring brass, up to 5 lbs pressure! A 1.5V cell can be put in series (try both directions to see which is best), or you can use a pot across the cell. EO shows a 2K pot across the cell, with the negative side going to the 'phones and the wiper to the crystal--wiper is bypassed to neg side with a .001mF condenser. (Pos. return is though the 'phones, coil and other side of the xtal).

Carborundum was used for heavy-duty "fixed" xtals; EO tells of ones made by the Carborundum Co. in the same form as a cartridge fuse with a heavy steel spring c/w: "We used to slam these down on the cement to readjust them!"

Many other mineral detectors benefit from use of a bias battery--Anatase, Bornite, Chalcopyrites and Zincite are just a few.

I do have a mildly ulterior motive here. The present owner of MRL is reprinting all the old EO publications. He's remastered the plates and is using heavy, acid-free paper.

Most of the HBs (typ. 24pp, 5.5"x8.5") are concerned with crystal sets,

one-tube receivers, and related items, including one devoted to headphones (various types, care, repair), and another very fine one on setting up a radio workshop. (Which I wish I'd had before I did mine--and plan to rebuild using notions from it!)

There are also three volumes of 8.5" x 1" "Detail Prints," one-page plans for various receivers, and several issues of various small-set magazines and flyers EO produced over the years.

Whole thing is about US\$45, from Modern Radio Labs, P. O. Box 14902, Minneapolis, MN 55414-0902. (Can't seem to find a current price list--it's a bit cheaper than it used to be!)

I would not mention it (kinda commercial, though MRL runs at the just barely break-even point by all accounts) but this collection of booklets is one of the best sources of old-time homebrew info I have \*ever\* encountered. An awful lot of what I know about the practical aspects of early radio came from MRL publications; I've been using 'em for 20 years and was delighted to finally complete my collection a few months ago!

Must admit to having received some compensation from MRL--Paul sent me several of the remastered/reprinted HBs & DP files for review. They really are \*much\* clearer than the old ones, with all the original text & diagrams unchanged.

73,  
--Bobbi

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Date: Sat, 24 May 1997 18:10:17 -0700  
From: Gerald Caouette <ve6nap@oanet.com>  
Subject: FREE ( almost)

I have about 100 lbs aproximatly of  
Norther Electric  
and  
Teletype Corparation  
relays and various parts .  
These are military Surplus and  
most are still in the original packaging

I would like the space back in my garage

Cost for material = \$0.00

Cost for shipping is all I want .  
As this is free its packaged by the pound I  
(I am not going to selectively package it for you ).

or if you are in the Edmonton, Alberta area  
and want to pick it up in person I will help you load it.

I need about a days notice

email me if interested

de  
ve6nap@oanet.com

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Date: Mon, 26 May 1997 9:18:00 -0600  
From: Alex Mendelsohn <alexm@pennwell.com>  
Subject: FW: FREE ( almost)

Gee, I remember when I would've driven to your QTH from the East Coast to get ahold of those polar relays, etc. for my 1960s RTTY station! How quickly time goes by, but I have fond memories of the non-typing "climbing monkey" reperf, the Model 26, oiling the clutches, etc. Whenever I smell motor oil, lots of great memories rush back to me--proving that smell is still the most nostalgic of the senses--especially when it comes to radio!

GL getting rid of the relays, etc. BTW: some folks actually make sideswipers outta WE255A polar relay mechanisms. Food fer thought, eh?

Vy 73, Alex, AI2Q in Kennebunk, Maine .--.

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From: Gerald Caouette  
To: ALEXM; "glowbugs@www.atl.org"  
Cc: 'VE6NAP@SMTP <ve6nap@oanet.com>'  
Subject: FREE ( almost)  
Date: Saturday, May 24, 1997 8:02PM

I have about 100 lbs aproximatly of  
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ve6nap@oanet.com

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Date: Sun, 25 May 1997 13:02:52 +0000  
From: "Brian Carling (Radio G3XLQ / AF4K)" <bry@mnsinc.com>  
Subject: "Autotransformer modulation"

Anyone here familiar with this concept and like to discuss it a little?

The idea is that you use an old P-P outout transformer and only use the primary side.

You connect the B+ to the center tap. One side goes to the modulator tube (Can be parallel tubes for more juice if desired. This would be a class A audio power amp stage.

The other side of the xfmr primary goes to your RF final amp stage. You make the idling currents about the same in the two so t hat the NET DC current in the xfmr primary is about ZERO, so that they balance out and the xfmr can handle more power that way.

Now, my friend G3UUR says that this works best when the turns ration on the two sides is about 1.4:1 - so I would think you could use an xfmr with a screen tap on the primary in some cases.

Help me out a little and tell me if this would work.

I have seen designs for small rigs using such a scheme in the old ARRL articles (but not many) and no one seems to have used this scheme for a higher power - say 100-200 watt rig.

Now, I have an audio amplifier that can supply 100 watts using a pair of 807 tubes, BUT the output tranny is no use for modulation xfmr because it only has "70V, 100V, and 120V LINE" outputs which seem to run in the range of about 50-90 ohms characteristic impedance.

I would love to use this brute as an autotrasformer choke mod scheme with a medium power AM final.

Any thoughts, y'all?

Bry, AF4K / G3XLQ

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*****
*** 73 from Radio AF4K/G3XLQ Gaithersburg, MD USA *
** E-mail to: bry@mnsinc.com *
*** See the interesting ham radio resources at: *
** http://www.mnsinc.com/bry/ *
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Date: Sun, 25 May 1997 13:02:53 +0000  
**From:** "Brian Carling (Radio G3XLQ / AF4K)" <bry@mnsinc.com>  
**Subject:** Re: High power xtal osc rigs

I remember the days when MCW was still used on HF in England by various services and was allowed for amateurs, I believe.

It has to be the most LUXURIOUS CW mode...

BTW - look out for me soon with a BUG!

Bry, AF4K

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*****
*** 73 from Radio AF4K/G3XLQ Gaithersburg, MD USA *
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\*\* E-mail to: bry@mnsinc.com \*

\*\*\* See the interesting ham radio resources at: \*

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Date: Sun, 25 May 1997 13:10:14 -0500 (CDT)  
From: mjsilva@ix.netcom.com (michael silva)  
Subject: Neat garage sale time-warp find

Hi all,

I don't usually get to garage sales since I'm too lazy to get up that early on the weekends, but my wife came home yesterday and said she saw some "neat magazines" down the road so I went to look. What I found was twelve years of Popular Mechanics (1944 to 1955), plus a number of '50s Radio Electronics, all for \$5. Been looking through the four boxes I lugged home and while most of it is just good general interest fun (why \*aren't\* we all out looking for uranium in our personal helicopters?), each PM issue has an electronics project, and the REs are fabulous, especially for the ads. Tube prices to make you drool, like 7 cents for a 1629, 32 cents for a 1625.

It looks like PM ran a "progressive receiver" series every year or two, taking the same rig from a one tube to a two tube to a three tube. Interesting concept.

You guys who actually grew up in that era had it good (I came along a little later).

73,  
Mike, KK6GM

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Date: Sun, 25 May 1997 22:15:20 -0400 (EDT)  
From: leeboo@ct.net (Leon Wiltsey)  
Subject: ? on regens

Hi gang

was working on my regen and made some interesting discoveries. most of the hum I was getting from the det stage s due to the audio choke I was using for the load. Moving the choke around changed the amount of hum. So I put a small sig in and measured it on the scope. Replaced choke with 8k resistor hum went down and sig went up in voltage about 30% Changed res to 22k and sig went up full 6db more hum did not change. raising value of res more did not raise sig out and just made me use more screen voltage to get it to osc. Sens went up with sig out with load of 22k. Why then do most all regen schematics call for a audio choke load on det. As far as I can see

they cause hum without any other advantages  
except when you have a low amount of b+ to work  
with. Am running 125v on plate and it osc at about  
15v on screen.

hope someone with much knowledge of regens  
knows the answer.  
a

68 yr old semidisabled senior  
(stroke got my balance & hand to eye coordination)  
ham agn as KF4RCL TECK+ (MUCH HAPPINESS)  
BUILD MOST OF MY STATION EQUIP  
(tubes that is no SOLID STATE)

Leon B Wiltsey (Lee)  
4600 Lake Haven BLVD.  
Sebring, Fl. 33872

SEBRING FL. THAT WONDERFUL PLACE WHERE THERE IS NO QRM  
FROM ANYTHING LOCAL

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End of glowbugs V1 #42  
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Created by **Steve Modena, AB4EL**  
Comments and suggestions to **modena@SunSITE.unc.edu**

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